

customer number 26645

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN THE APPLICATION OF

DOCKET No.: 3255R

CRAIG D. TIPTON AND BILL A. WATERS

SERIAL No.: 10/752,894

EXAMINER: J. GOLOBOY

FILED: JANUARY 7, 2004

GROUP ART UNIT: 1714

TITLE: AUTOMATIC TRANSMISSION FLUIDS WITH PHTHALIC ACID CORROSION
INHIBITION

Wickliffe, Ohio

Hon. Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

DECLARATION UNDER 37 C.F.R. §1.132

I, Craig D. Tipton, declare as follows:

I received a BSc. degree in 1967 from The Pennsylvania State University and a PhD. degree in the field of Organic Chemistry in 1971 from The University of Illinois.

I have been employed by The Lubrizol Corporation since 1971. Since 1974 I have been responsible for the development of automatic transmission fluid technology in one capacity or another for The Lubrizol Corporation.

I am named as an inventor on some 28 United States patents, and I am a coinventor of the above-identified application.

In order to illustrate certain of the distinction of the present invention from certain prior technology, the following experiments were performed under my direction:

I directed personnel from our corporate Testing Services group to prepare samples according to Example A and Example B of U.S. Patent 3,992,307 (Hotten, see column 13 lines 40 through 51). The samples contained components as set forth in the table below. Each sample was prepared both by a direct blend of each of the components as well as by first preparing a concentrate of all the components and then mixing with the oil.

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is being filed electronically

on 1-7-07 By: Allen Decate

Component, % weight	Sample A from conc.	Sample A direct blend	Sample B from conc.	Sample B direct blend
Petroleum oil	88.45	88.45	87.45	87.45
Terephthalic acid	0.050	0.050	0.050	0.050
Zinc dialkyldithiophosphate (including 11% oil)	5.10	5.10	5.10	5.10
Succinimide dispersant (including 43% dil. oil)	6.00	6.00	6.00	6.00
Calcium sulfonate rust inhibitor, detergent (1.0 TBN, incl. 50% dil. oil)	0.40	0.40	0.40	0.40
Sulfurized olefin (18.8% S)			1.00	1.00
Results				
Solubility of terephthalic acid at 80 °C (visual evaluation)	insoluble	insoluble	insoluble	insoluble
Storage stability (in presence of steel)*				
1 week, room temp.	C + L	C + L	C + L	C + T
1 week, 65 °C	C + L	C + L	C + L	C + L
2 weeks, room temp.	C + L	C + L	C + L	C + L
2 weeks, 65 °C	C + L	C + L	C + L	C + L
3 weeks, room temp.	C + L	C + L	C + L	C + L
3 weeks, 65 °C	C + L	C + L	C + L	C + L
4 weeks, room temp.	C + L	C + L	C + L	C + L
4 weeks, 65 °C	C + L	C + L	C + L	C + L

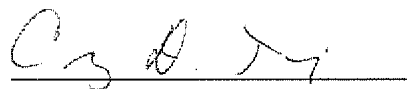
* C indicates clear composition; +L indicates light sediment (covering bottom of bottle up to 1/16 inch); + T indicates trace sediment (visible but not measurable)

The resulting blends were visually observed initially upon heating to 80 °C and subsequently upon storage at either room temperature or at 65 °C. These were routine tests and observations as regularly performed and reported by our Test Services group. As shown in the table, the terephthalic acid was found to be insoluble initially, at 80 °C, and all the samples subsequently exhibited sediment, both at room temperature and 65°C. Upon my request, the sediments from two of the samples were isolated and

analyzed by Fourier-transform infrared spectroscopy. The IR spectra obtained were compared with the known spectrum of terephthalic acid and found to match.

I conclude that terephthalic acid is not made soluble by mixing in the formulations disclosed in Example A and Example B of U.S. Patent 3,992,307.

I further declare that all statements herein made of my own knowledge are true and all statements herein made on information and belief are believed to be true. I understand that willful false statements and the like are punishable by fine or imprisonment or both (18 U.S.C. 1001) and may jeopardize the validity of the application or any patent issuing thereon.


Craig D. Tipton

January 3, 2007 (date)